'Attorney's Docket: 074263.0210 (SC-98-025 C3-A)

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#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Shilin Chen

Filing Date:

January 26, 2003

Title:

FORCE-BALANCED ROLLER-CONE BITS, SYSTEMS,

DRILLING METHODS, AND DESIGN METHODS

#### MAIL STOP PATENT APPLICATION

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

## **INFORMATION DISCLOSURE STATEMENT**

Applicant respectfully requests, pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, that the references listed on the attached PTO-1449 form, and previously cited in U.S. Application Serial No. 10/383,805 by Applicant and entitled "Force-Balanced Roller-Cone Bits, Systems, Drilling Methods, and Design Methods," be considered and cited in the examination of the above-identified continuation patent application. Pursuant to 37 C.F.R. § 1.98(d), copies of these references are not being furnished. Furthermore, pursuant to 37 C.F.R. § 1.97(h), no representation is made that these references qualify as prior art or that these references are material to the patentability of the present application.

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Also, pursuant to Manual of Patent Examining Procedures § 2001.06(c), Applicant submits that the subject matter of the instant Application is involved in Civil Action No. 4-02CV269 in the United States District Court for the Eastern District of Texas, Sherman Division, styled *Halliburton Energy Services, Inc. v. Smith International, Inc.* (the "Litigation"). The attached PTO-1449 form includes documents relating to the Litigation. As stated above, Applicant requests that such documents be considered and cited in the examination of the above-identified patent application. Furthermore, pursuant to 37 C.F.R. § 1.97(h), no representation is made that these references qualify as prior art or that these references are material to the patentability of the present application.

Pursuant to 37 C.F.R. § 1.97(b), no fee is believed due. If, however, Applicant has overlooked the need for a fee, the Commissioner is hereby authorized to charge any underpayment to Deposit Account No. 50-2148 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P. Attorneys for Applicant

Luke K. Pedersen

Reg. No. 45,003

Date: January 26, 2004

CORRESPONDENCE ADDRESS: Customer No. 31625

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### PTO-1449

# **Information Disclosure Citation** In an Application

Application No.

Docket Number 074263.0210

Group Art Unit Unassigned

Shilin Chen Filing Date

Applicant(s)

January 26, 2004

#### **U.S. PATENT DOCUMENTS**

(SC-98-025 C3-A)

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A	1,847,981	03/01/1932	C.E. Reed			07/23/1930
В	2,117,679	05/17/1938	C.E. Reed	255	71	12/27/1935
C	2,122,759	07/05/1938	F.L. Scott	255	71	07/16/1936
D	2,132,498	10/11/1938	H.C. Smith	255	71	07/22/1936
E	2,165,584	07/11/1939	H.C. Smith et al.	255	71	07/22/1936
F	2,230,569	02/04/1941	J.H. Howard et al	255	71	12/20/1939
G	2,496,421	02/07/1950	J.C. Stokes	255	71	05/07/1946
Н	2,728,559	12/27/1955	E.G. Boice et al.	255	334	12/10/1951
I	2,851,253	09/09/1958	E.G. Boice	255	347	04/27/1954
J	4,187,922	02/12/1980	Phelps	175	374	05/12/1978
K	4,334,586	06/15/1982	Schumacher	175	374	06/05/1980
L	4,343,371	08/10/1982	Baker III, et al	175	329	04/28/1980
M	4,393,948	07/19/1983	Fernandez	175	374	04/01/1981
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О	4,427,081	01/24/1984	Crawford	175	376	01/19/1982
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	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
				:		YES	NO
R	SU 1768745 A1	10/15/1992	SU	E 21 B	10/16	Х	
S	SU 1441051 A2	11/30/1988	SU	E 21 B	10/16	Х	
T	EP 0511547 A2	04/14/1992	EPO	E 21 B	10/16	Х	
U	EP 0511547 A3	04/14/1992	EPO	E 21 B	10/16	Х	
V	EP 0511547 B1	04/14/1992	EPO	E 21 B	10/16	Х	

**EXAMINER** 

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

U.S. PATENT AND TRADEMARK OFFICE

#### Application No. Applicant(s) PTO-1449 Shilin Chen Filing Date Group Art Unit Docket Number **Information Disclosure Citation** January 26, 2004 074263.0210 Unassigned In an Application (SC-98-025 C3-A)

# **U.S. PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
w	4,815,342	03/25/1989	Brett et al.	76	108	12/15/1987
X	4,848,476	07/18/1989	Deane et al	175	340	02/29/1988
Y	5,137,097	08/11/1992	Fernandez	175	228	10/30/1990
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AJ	5,421,423	06/06/1995	Huffstutler	175	374	03/22/1994
AK	5,704,436	01/06/1998	Smith et al	175	27	03/25/1996

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						YES	NO
AL	GB 2241266 A	08/28/1991	GB	E21B	10/46	X	

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AM	MA Dekun, The Operational Mechanics of the Rock Bit, Petroleum Industry Press, Beijing, China, (1996)	
AN	D. Ma, D. Zhou & R. Deng, The Computer Stimulation of the Interaction Between Roller Bit and Rock, (1995)	
AO	Shilin Chen, Linear and Nonlinear Dynamics of Drillstrings, (1994-1995)	
AP	D. Ma, & J.J. Azar, Dynamics of Roller Cone Bits, (12/1985)	
AQ	D.K.Ma & S.L. Yang, Kinamatics of the Cone Bit, (06/1985)	
AR	Dma & J.J. Azar, A New Way to Characterize the Gouging-Scraping Action of Roller Cone Bits, (1989)	
AS	Russian bit catalog listing items "III 190,5 Т-ЦВ-1" and "III 109,5 ТКZ-ЦВ", (prior 1997)	
AT	L.E. Hibbs, Jr., et al, Diamond Compact Cutter Studies for Geothermal Bit Design, (Nov. 1978)	

DATE CONSIDERED **EXAMINER** 

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

U.S. PATENT AND TRADEMARK OFFICE

#### Page 3 of 4 Application No. Applicant(s) PTO-1449 Shilin Chen Filing Date Docket Number Group Art Unit **Information Disclosure Citation** January 26, 2004 074263.0210 Unassigned In an Application (SC-98-025 C3-A) **U.S. PATENT DOCUMENTS** FILING DATE **SUBCLASS CLASS** NAME DOCUMENT NO. DATE 02/02/1996 175 374 AU 5,715,899 02/10/1998 Liang et al $\overline{AV}$ 175 05/14/1996 5,730,234 03/24/1998 Putot 50 03/25/1996 175 40 AW 5,794,720 08/18/1998 Smith et al 12/12/1995 09/22/1998 Wisler et al 340 855.5 AX5,812,068 175 40 AY 5,813,480 09/29/1998 Zaleski, Jr., et al 12/03/1996 09/29/1998 Portwood 175 430 06/21/1996 AZ5,813,485 BA 5,839,526 11/24/1998 Cisneros, et al. 175 431 04/04/1997 BB 6,002,985 12/14/1999 702 13 05/06/1997 Stephenson 702 09/18/1997 BC 6,012,015 01/04/2000 Tubel 6 702 9 10/23/1996 BD 6,021,377 02/01/2000 Dubinsky et al 702 7 07/21/1998 BE 6,044,325 03/28/2000 Chakravarthy et al 340 854.4 09/02/1997 BF 6,057,784 05/02/2000 Schaaf et al 08/31/1999 08/01/2000 Chen 175 57 BG 6,095,262 Goldman et al 175 39 11/13/1998 BH 6,109,368 09/29/2000 175 57 08/31/1999 Chen BI 6,213,225 04/10/2001 09/03/1998 175 331 BJ 6,241,034 06/01/2001 Steinke et al 57 03/10/2000 Chen 175 BK 6,401,839 06/01/2002 FOREIGN PATENT DOCUMENTS TRANSLATION **CLASS SUBCLASS** DOCUMENT NO. DATE **COUNTRY** YES NO BL BM OTHER DOCUMENTS (Including Author, Title, Source, and Pertinent Pages) DATE Adam T. Bourgoyne Jr et. al., "Applied Drilling Engineering", Society of Petroleum Engineers BN Textbook Series (1991) J. P. Nguyen, "Oil and Gas Field Development Techniques: Drilling" (translation 1996, from BO French original 1993)

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DATE CONSIDERED

**EXAMINER** 

#### Applicant(s) Application No. PTO-1449 Shilin Chen Filing Date Docket Number Group Art Unit **Information Disclosure Citation** 074263.0210 Unassigned January 26, 2004 In an Application (SC-98-025 C3-A) U.S. PATENT DOCUMENTS FILING DATE **SUBCLAS** DOCUMENT NO. DATE NAME **CLASS** 57 08/01/2000 BP 175 07/02/2002 Chen 6,412,577 431 08/16/2000 175 BQ 6,527,068 03/01/2003 Singh et al BR FOREIGN PATENT DOCUMENTS **CLASS SUBCLASS** TRANSLATION DOCUMENT NO. DATE COUNTRY YES NO BS LITIGATION DOCUMENTS DATE Plaintiff's Original Complaint for Patent Infringement and Jury Demand, filed September 6, 2002 in the 09/06/2002 BT United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, Halliburton Energy Services, Inc. v. Smith International, Inc., 4 pages 03/14/2003 BU Answer and Counterclaim of Smith International, filed March 14, 2003, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, Halliburton Energy Services, Inc. v. Smith International, Inc., 6 pages Response of Plaintiff and Counterclaim Defendant to Defendant's Counterclaim of Declaratory Judgment, 04/03/2003 BV filed April 3, 2003, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, Halliburton Energy Services, Inc. v. Smith International, Inc., 3 pages 10/09/2003 BW First Amended Answer and Counterclaim of Smith International, filed October 9, 2003, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, Halliburton Energy Services, Inc. v. Smith International, Inc., 8 pages OTHER DOCUMENTS DATE (Including Author, Title, Source, and Pertinent Pages) BX "Making Hole", part of Rotary Drilling Series, edited by Charles Kirkley (1983) "Drilling Mud", part of Rotary Drilling Series, edited by Charles Kirkley (1984) BY BZ H.G. Benson, "Rock Bit Design, Selection and Evaluation", presented at the spring meeting of the pacific coast district, American Petroleum Institute, Division of Production, Los Angeles, May, 1956 J.C. Estes, "Selecting the Proper Rotary Rock Bit", Journal of Petroleum Technology, Nov., CA 1971, pp1359-1367 Sikarskie, et. al., "Penetration Problems in Rock Mechanics", American Society of Mechanical CB Engineers, Rock Mechanics Symposium, 1973 Dykstra, et. al., "Experimental Evaluations of Drill String Dynamics", Amoco Report Number CC SPE 28323, 1994 Kenner and Isbell, "Dynamic Analysis Reveals Stability of Roller Cone Rock Bits", SPE 28314, CD 1994 CE GF DATE CONSIDERED **EXAMI** NER EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.